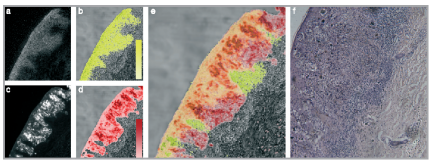
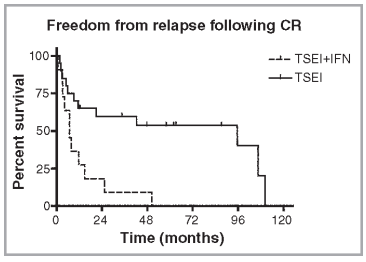
Assessment of the presence of mucosal human papillomaviruses in malignant melanomas using combined fluorescent *in situ* hybridization and chemiluminescent immunohistochemistry



High-risk mucosal human papillomaviruses (especially HPV 16 and 18) display a strong association with cancer development. They have been found in over 99% of cervical carcinomas and, in addition, they have been implicated in the development of cancers at other body sites, including nonmelanoma and melanoma skin cancers. The strong colocalization of high-risk mucosal HPV nucleic acids and HMB-45 melanocytic marker, in the same sections of primary melanomas, demonstrated that HPV viral nucleic acids were specifically present in melanoma cells and supported a possible active role of HPV in skin melanoma carcinogenesis. *Br J Dermatol* 2007; 156:38–44.

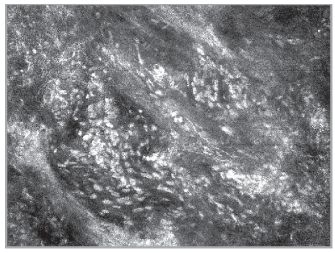
Adjuvant interferon

Roberge and coworkers retrospectively reviewed the outcomes of 50 patients treated with total skin electron irradiation for mycosis fungoides (stages IA–IVA). Nineteen of these patients had been treated with concurrent and adjuvant alpha-interferon, 31 without. Interferon was associated with the expected fever, chills or myalgia in a third of patients and minor haematological toxicity in two patients. Complete response rates were similar in both groups. Interferon did not improve duration of response or survival — even when correcting for known prognostic factors. While recurrences are common following response of mycosis fungoides to irradiation, the role of adjuvant therapies remains controversial. Although adjuvant single-agent interferon is well tolerated it also appears ineffective. *Br J Dermatol* 2007; 156:57–61.

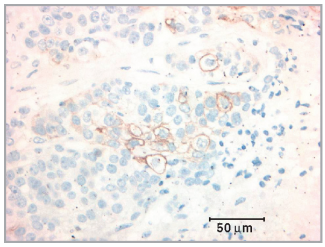


Ex vivo confocal laser-scanning microscopy of squamous cell carcinoma

Mohs micrographic surgery is an established method and offers intraoperative analysis to detect tumour complexes in resected tumour margins. However, this procedure is time consuming and expensive. In contrast, *ex vivo* confocal laser-scanning microscopy (CLSM) offers rapid imaging of excised tissue specimens without conventional histotechnical procedures. In this study, CLSM has been demonstrated to visualize general morphology and cellular tumour details of the cancer area of fresh excisions from squamous cell carcinoma. Furthermore, high diagnostic accuracy was achieved. CLSM remains an exciting technology and may be used as a prescreening tool for excised tumour specimens in the future. *Br J Dermatol* 2007; 156:81–84.



Characterization of the expression and activation of the epidermal growth factor receptor in squamous cell carcinoma of the skin



Skin squamous cell carcinoma (SCC) is increasingly common. New targeted therapies, such as treatment directed at the epidermal growth factor receptor (EGFR), may be effective and less toxic. To characterize the expression and activation of EGFR in 21 advanced skin SCCs, we used quantitative Western blotting using the LiCor immunofluorescence detection system with validation by immunohistochemistry. Only nine (43%) tumours expressed EGFR above background and, of these, five expressed phos-EGFR. We also evaluated downstream targets and examined the associations with pathological features and clinical behaviour, but there was none. Before designing a trial with a targeted agent, it is important to verify that the target is present. *Br J Dermatol* 2007; 156:92–98.

The risk for cutaneous malignant melanoma, melanoma *in situ* and intraocular malignant melanoma in relation to tobacco use and body mass index

The increasing incidence of cutaneous malignant melanoma (CMM) cannot entirely be ascribed to ultraviolet radiation (UVR). We designed a cohort study to examine the effect of tobacco products and body mass index. The risk of CMM was found to be decreased in tobacco users. One hypothesis is that tobacco suppresses the immune system and thereby protects against deleterious UVR-induced inflammation. Being overweight was found to increase the risk of CMM. A better understanding of the role of lifestyle factors in disease aetiology is important as they are potentially preventable and can be used in clinical guidance of patients. *Br J Dermatol* 2007; 156:99–105.